Abstract:

A known electromagnetic actuator comprises two electromagnets arranged at a spacing distance relative to one another, an armature that is movable back and forth by magnetic force between the electromagnets against the force of two respectively counteracting springs, as well as setting means for setting the resting position of the armature to the geometric center position between the electromagnets. The substantial disadvantage of this actuator is the high energy requirement of the electromagnets. The new actuator is to comprise a low energy requirement. The springs are pre-stressed in such a manner that the same energy is stored in both springs in connection with a maximum compression of the springs that is prescribed by the stroke travel distance of the armature. Control of the gas exchange in an internal combustion machine.